

CONTENTS OF VOLUME 148

Vol. 148A, No. 1

Includes papers presented in the session "Water Transport" at the Society of Experimental Biology's Annual Meeting at the University of Kent, Canterbury, UK, April 2nd-7th 2006

Edited by: Martin Grosell and Erik Hviid Larsen

Symposium papers

M. Grosell and E. Hviid Larsen	1	Introduction to the special issue on water transport
W.G. Anderson, J.R. Taylor, J.P. Good, N. Hazon and M. Grosell	3	Body fluid volume regulation in elasmobranch fish
M. Grosell and J.R. Taylor	14	Intestinal anion exchange in teleost water balance
F.B. Eddy	23	Drinking in juvenile Atlantic salmon (Salmo salar L.) in response to feeding and activation of the endogenous renin-angiotensin system
E.K. Hoffmann, T. Schettino and W.S. Marshall	29	The role of volume-sensitive ion transport systems in regulation of epithelial transport
S.D. Hillyard, A. Viborg, T. Nagai and K.vS. Hoff	44	Chemosensory function of salt and water transport by the amphibian skin
N.J. Willumsen, A.L. Viborg and S.D. Hillyard	55	Vascular aspects of water uptake mechanisms in the toad skin: Perfusion, diffusion, confusion
R. Nielsen and E.H. Larsen	64	Beta-adrenergic activation of solute coupled water uptake by toad skin epithelium results in near-isosmotic transport
M. Suzuki, T. Hasegawa, Y. Ogushi and S. Tanaka	72	Amphibian aquaporins and adaptation to terrestrial environments: A review
C.P. Cutler, AS. Martinez and G. Cramb	82	The role of aquaporin 3 in teleost fish
J.H. Spring, S.R. Robichaux, N. Kaufmann and J.L. Brodsky	92	Localization of a <i>Drosophila</i> DRIP-like aquaporin in the malpighian tubules of the house cricket, <i>Acheta domesticus</i>
E.H. Larsen, N. Møbjerg and R. Nielsen	101	Application of the Na ⁺ recirculation theory to ion coupled water transport in low- and high resistance osmoregulatory epithelia
General papers		
S.K. Jasra, W.J. Arbuckle, L.D. Corkum, W. Li, A.P. Scott and B. Zielinski	117	The seminal vesicle synthesizes steroids in the round goby Neogobius melanostomus
P.C. Castilho, A.M. Landeira-Fernandez, J. Morrissette and B.A. Block	124	Elevated Ca ²⁺ ATPase (SERCA2) activity in tuna hearts: Comparative aspects of temperature dependence

Contents of volume

M. Tresguerres, S.K. Parks and G.G. Goss	133	Recovery from blood alkalosis in the Pacific hagfish (<i>Eptatretus stoutii</i>): Involvement of gill V-H ⁺ -ATPase and Na ⁺ /K ⁺ -ATPase
V.A. Abreu, C.A. Dal Belo, S.S. Hernandes-Oliveira, C.R. Borja-Oliveira, S. Hyslop, M.d.F.D. Furtado and L. Rodrigues-Simioni	142	Neuromuscular and phospholipase activities of venoms from three subspecies of <i>Bothrops neuwiedi</i> (B. n. goyazensis, B. n. paranaensis and B. n. diporus)
E. Arenas-Ríos, M.A. León-Galván, P.E. Mercado, R. López-Wilchis, D.L.M.I. Cervantes and A. Rosado	150	Superoxide dismutase, catalase, and glutathione peroxidase in the testis of the Mexican big-eared bat (Corynorhinus mexicanus) during its annual reproductive cycle
M.E. López-Oliva, A. Agis-Torres, E. Márquez and E. Muñoz-Martínez	159	Growth hormone modulates the degradative capacity of muscle nucleases but not of cathepsin D in post-weaning mice
ZJ. Zhao and DH. Wang	168	Effects of diet quality on energy budgets and thermogenesis in Brandt's voles
L.C.F. Santos, N.M. Belli, A. Augusto, D.C. Masui, F.A. Leone, J.C. McNamara and R.P.M. Furriel	178	Gill (Na^+,K^+) -ATPase in diadromous, freshwater palaemonid shrimps: Species-specific kinetic characteristics and α -subunit expression
T.Y. Chen and B.S. Pan	189	Ex vivo inhibitory effect on tilapia LDL oxidation and hypolipidemia properties of Glycine tomentella root extract
C. Sevcencu, C. Ardelean and C. Tarba	196	Electrical and mechanical effects induced by cold temperatures in the ventricle of isolated <i>Rana ridibunda</i> hearts
D. da Silva-Castiglioni, B. Kaiser Dutra, G.T. Oliveira and G. Bond Buckup	204	Seasonal variations in the intermediate metabolism of <i>Parastacus varicosus</i> (Crustacea, Decapoda, Parastacidae)
S.M. Mamun, U. Focken and K. Becker	214	Comparison of metabolic rates and feed nutrient digestibility in conventional, genetically improved (GIFT) and genetically male (GMNT) Nile tilapia, Oreochromis niloticus (L.)
Y. Hiratsuka and T. Uehara	223	Feeding rates and absorption efficiencies of four species of sea urchins (genus <i>Echinometra</i>) fed a prepared diet
A.A. Olkowski, S. Nain, C. Wojnarowicz, B. Laarveld, J. Alcorn and B.B. Ling	230	Comparative study of myocardial high energy phosphate substrate content in slow and fast growing chicken and in chickens with heart failure and ascites
B.K. Dutra, D.S. Castiglioni, R.B. Santos, G. Bond-Buckup and G.T. Oliveira	239	Seasonal variations of the energy metabolism of two sympatric species of <i>Hyalella</i> (Crustacea, Amphipoda, Dogielinotidae) in the southern Brazilian highlands
Review	1	Vol. 148A, No. 2
M. Clauss, A. Schwarm, S. Ortmann, W. Jürgen Streich and J. Hummel	249	A case of non-scaling in mammalian physiology? Body size, digestive capacity, food intake, and ingesta passage in mammalian herbivores
General papers		
A.J. Hall, R.S. Wells, J.C. Sweeney, F.I. Townsend, B.C. Balmer, A.A. Hohn and H.L. Rhinehart	266	Annual, seasonal and individual variation in hematology and clinical blood chemistry profiles in bottlenose dolphins (<i>Tursiops truncatus</i>) from Sarasota Bay, Florida
N. Romano and C. Zeng	278	Acute toxicity of ammonia and its effects on the haemolymph osmolality, ammonia-N, pH and ionic composition of early juvenile mud crabs, <i>Scylla serrata</i> (Forskål)

P. Kalil-Gaspar, S. Marcuzzo, P. Rigon, C.G. Molina and M. Achaval	286	Capsaicin-induced avoidance behavior in the terrestrial Gastropoda Mega-obulimus abbreviatus: Evidence for TRPV-1 signaling and opioid modulation in response to chemical noxious stimuli
S.C. Newcomer, J.C. Taylor, D.K. Bowles and M.H. Laughlin	292	Endothelium-dependent and -independent relaxation in the forelimb and hindlimb vasculatures of swine
A.E. Zubidat and A. Haim	301	The effect of α - and β -adrenergic blockade on daily rhythms of body temperature, urine production, and urinary 6-sulfatoxymelatonin of social voles <i>Microtus socialis</i>
A. Mulligan-Tuttle and J.J. Heikkila	308	Expression of the small heat shock protein gene, hsp30, in Rana catesbeiana fibroblasts
C.A. Landry, S.L. Steele, S. Manning and A.O. Cheek	317	Long term hypoxia suppresses reproductive capacity in the estuarine fish, Fundulus grandis
A. Pirone, G. Giannaccini, L. Betti,A. Lucacchini, G. Mascia, L. Fabbrini,P. Italiani, A. Uccelli, C. Lenzi andO. Fabiani	324	[³ H] muscimol receptors sites in the carp (<i>Cyprinus carpio</i> L.) brain: Binding assay and autoradiographic distribution
J.S. Bystriansky, N.T. Frick, J.G. Richards, P.M. Schulte and J.S. Ballantyne	332	Failure to up-regulate gill Na^+, K^+ -ATPase α -subunit isoform $\alpha 1b$ may limit seawater tolerance of land-locked Arctic char (Salvelinus alpinus)
S.N. Olsen, H. Ramløv and P. Westh	339	Effects of osmolytes on hexokinase kinetics combined with macromolecular crowding: Test of the osmolyte compatibility hypothesis towards crowded systems
ZQ. Zhang and DH. Wang	346	Seasonal changes in thermogenesis and body mass in wild Mongolian gerbils (Meriones unguiculatus)
K.J. Navara, B.C. Trainor and R.J. Nelson	354	Photoperiod alters macrophage responsiveness, but not expression of Toll-like receptors in Siberian hamsters
S. Hochscheid, C.R. McMahon, C.J.A. Bradshaw, F. Maffucci, F. Bentivegna and G.C. Hays	360	Allometric scaling of lung volume and its consequences for marine turtle diving performance
F. Trischitta, P. Pidalà and C. Faggio	368	Nitric oxide modulates ionic transport in the isolated intestine of the eel, Anguilla anguilla
N. Sallagundala, K. Yakimova and B. Tzschentke	374	Effect of GABAergic substances on firing rate and thermal coefficient of hypothalamic neurons in the juvenile chicken
M.R. Miller, P.D. Nichols and C.G. Carter	382	Replacement of fish oil with thraustochytrid Schizochytrium sp. L oil in Atlantic salmon parr (Salmo salar L) diets
T.K. Revell and S.G. Dunbar	393	The energetic savings of sleep versus temperature in the Desert Iguana (Dipsosaurus dorsalis) at three ecologically relevant temperatures
T.A. Kohn, L.C. Hoffman and K.H. Myburgh	399	Identification of myosin heavy chain isoforms in skeletal muscle of four Southern African wild ruminants
T. Tachibana, D. Oikawa, N. Adachi, T. Boswell and M. Furuse	408	Central administration of alpha-melanocyte-stimulating hormone changes lipid metabolism in chicks
F.J. Arjona, L. Vargas-Chacoff, I. Ruiz-Jarabo, M.P. Martín del Río and J.M. Mancera	413	Osmoregulatory response of Senegalese sole (Solea senegalensis) to changes in environmental salinity
A.V. Sirotkin and R. Grossmann	422	Leptin directly controls proliferation, apoptosis and secretory activity of cultured chicken ovarian cells
I. Giffard-Mena, V. Boulo, F. Aujoulat, H. Fowden, R. Castille, G. Charmantier and G. Cramb	430	Aquaporin molecular characterization in the sea-bass (<i>Dicentrarchus labrax</i>): The effect of salinity on AQP1 and AQP3 expression

Contents of volume

M.A. Carroll and E.J. Catapane	445	The nervous system control of lateral ciliary activity of the gill of the bivalve mollusc, Crassostrea virginica
R. Srivastava, L.E. Cornett and C.M. Chaturvedi	451	Effect of photoperiod and estrogen on expression of arginine vasotocin and its oxytocic-like receptor in the shell gland of the Japanese quail
Md.S.I. Khan, T. Tachibana, Y. Hasebe, N. Masuda and H. Ueda	458	Peripheral or central administration of nitric oxide synthase inhibitor affects feeding behavior in chicks
P.J. Rombough	463	Ontogenetic changes in the toxicity and efficacy of the anaesthetic MS222 (tricaine methanesulfonate) in zebrafish (<i>Danio rerio</i>) larvae
C. Suzer, S. Aktülün, D. Çoban, H. Okan Kamacı, Ş. Saka, K. Fırat and A. Alpbaz	470	Digestive enzyme activities in larvae of sharpsnout seabream (Diplodus puntazzo)
Corrigendum		
C.A. Navas and C.A. Freire	478	Corrigendum to "Comparative biochemistry and physiology in Latin America over the last decade (1997–2006)" [Comp. Biochem. Physiol. 147A (2007) 577–585]
		Vol. 148A, No. 3
Review		
PP. Hwang and TH. Lee	479	New insights into fish ion regulation and mitochondrion-rich cells
General papers		
K. Henty, R.M.G. Wells and T. Brittain	498	Characterization of the hemoglobins of the adult brushtailed possum, Trichosurus vulpecula (Kerr) reveals non-genetic heterogeneity
Y. Vollaire, D. Banas, M. Thomas and H. Roche	504	Stable isotope variability in tissues of the Eurasian perch Perca fluviatilis
G.L.J. Galli, N. Skovgaard, A.S. Abe, E.W. Taylor and T. Wang	510	The adrenergic regulation of the cardiovascular system in the South American rattlesnake, <i>Crotalus durissus</i>
L.A. Manwell and J.J. Heikkila	521	Examination of KNK437- and quercetin-mediated inhibition of heat shock-induced heat shock protein gene expression in <i>Xenopus laevis</i> cultured cells
K.L. Hull, J.F. Cockrem, J.P. Bridges, E.J. Candy and C.M. Davidson	531	Effects of corticosterone treatment on growth, development, and the corticosterone response to handling in young Japanese quail (Coturnix coturnix japonica)
D.V. Garina, V.V. Kuz'mina and Yu.V. Gerasimov	544	The effect of epinephrine on feeding and motion patterns in goldfish <i>Carassius auratus</i> (L.)
K. Kubota, F. Sato, S. Aramaki, T. Soh, N. Yamauchi and Ma. Hattori	550	Ubiquitous expression of myostatin in chicken embryonic tissues: Its high expression in testis and ovary
R.P. Evans, R.S. Hobbs, S.V. Goddard and G.L. Fletcher	556	The importance of dissolved salts to the in vivo efficacy of antifreeze proteins
T.D. Clark, R.S. Seymour, K. Christian, R.M.G. Wells, J. Baldwin and A.P. Farrell	562	Changes in cardiac output during swimming and aquatic hypoxia in the air-breathing Pacific tarpon
J. Bańbura, M. Bańbura, A. Kaliński, J. Skwarska, R. Słomczyński, J. Wawrzyniak and P. Zieliński	572	Habitat and year-to-year variation in haemoglobin concentration in nestling blue tits <i>Cyanistes caeruleus</i>

M.E. Mahmoud, Y. Shimizu, T. Shiina, H. Nikami, R.M. Dosoky, M.M. Ahmed and T. Takewaki	578	Involvement of a capsaicin-sensitive TRPV1-independent mechanism in lipopolysaccharide-induced fever in chickens
Y. Liao, V. Lopez, T.B. Shafizadeh, C.H. Halsted and B. Lönnerdal	584	Cloning of a pig homologue of the human lactoferrin receptor: Expression and localization during intestinal maturation in piglets
S. Medler, E.S. Chang and D.L. Mykles	591	Muscle-specific calpain is localized in regions near motor endplates in differentiating lobster claw muscles
M.V. Nechaeva, I.G. Vladimirova and T.A. Alekseeva	599	Oxygen consumption as related to the development of the extraembryonic membranes and cardiovascular system in the European pond turtle (<i>Emys orbicularis</i>) embryogenesis
D. Moran and R.M.G. Wells	611	Ontogenetic scaling of fish metabolism in the mouse-to-elephant mass magnitude range
H. Nakamura, S. Yoshitome, I. Sugimoto, Y. Sado, A. Kawahara, S. Ueno, T. Miyahara, Y. Yoshida, N. Aoki-Yagi and E. Hashimoto	621	Cellular distribution of M_r 25,000 protein, a protein partially overlapping phosvitin and lipovitellin 2 in vitellogenin B1, and yolk proteins in <i>Xenopus laevis</i> oocytes and embryos
H. Ohsaki, T. Sawa, S. Sasazaki, K. Kano, M. Taniguchi, F. Mukai and H. Mannen	629	Stearoyl-CoA desaturase mRNA expression during bovine adipocyte differentiation in primary culture derived from Japanese Black and Holstein cattle
D. Cemerikic, J. Nesovic-Ostojic,D. Popadic, A. Knezevic, S. Dragovic,A. Milovanovic and J. Milovanovic	635	Absence of KCNQ1-dependent K ⁺ fluxes in proximal tubular cells of frog kidney
S. Tomlinson, P.C. Withers and C. Cooper	645	Hypothermia versus torpor in response to cold stress in the native Australian mouse Pseudomys hermannsburgensis and the introduced house mouse Mus musculus
S.M. Boback, C.L. Cox, B.D. Ott, R. Carmody, R.W. Wrangham and S.M. Secor	651	Cooking and grinding reduces the cost of meat digestion
M.A. Cline, D.C. Godlove, W. Nandar, C.N. Bowden and B.C. Prall	657	Anorexigenic effects of central neuropeptide S involve the hypothalamus in chicks (Gallus gallus)
C.D. Suski, S.J. Cooke, A.J. Danylchuk, C.M. O'Connor, MA. Gravel, T. Redpath, K.C. Hanson, A.J. Gingerich, K.J. Murchie, S.E. Danylchuk, J.B. Koppelman and T.L. Goldberg	664	Physiological disturbance and recovery dynamics of bonefish (<i>Albula vulpes</i>), a tropical marine fish, in response to variable exercise and exposure to air
E.H. Schlenker	674	In hamsters dopamine D_2 receptors affect ventilation during and following intermittent hypoxia
G.J. Lurman, N. Koschnick, HO. Pörtner and M. Lucassen	681	Molecular characterisation and expression of Atlantic cod (Gadus morhua) myoglobin from two populations held at two different acclimation temperatures
N. Yamaguchi, T. Yamamoto, K. Suruga and S. Takase	690	Developmental changes in gene expressions of β -carotene cleavage enzyme and retinoic acid synthesizing enzymes in the chick duodenum
R.M. Andrews	698	Effects of temperature on embryonic development of the veiled chameleon, Chamaeleo calyptratus
Erratum		
L.D. Bacigalupe, N.M. Araya, M.J. Carter, T.P. Catalán, M.A. Lardies and F. Bozinovic	707	Erratum to "Maternal effects, maternal body size and offspring energetics: A study in the common woodlouse <i>Porcellio laevis</i> " [Comp. Biochem. Physiol. 147A (2007) 349–354]

Vol. 148A, No. 4

Includes papers from the Symposium on Developmental Transitions in Respiratory Physiology at the first International Congress of Respiratory Biology, Bad Honnef, Germany, August 2006

Edited by: Edward M. Dzialowski

Symposium papers		
E.M. Dzialowski	709	Introduction to the symposium on developmental transitions in respiratory physiology
J.I. Spicer and S.D. Rundle	712	Plasticity in the timing of physiological development: Physiological heterokairy — What is it, how frequent is it, and does it matter?
K.M. Warkentin	720	Oxygen, gills, and embryo behavior: mechanisms of adaptive plasticity in hatching
P. Rombough	732	The functional ontogeny of the teleost gill: Which comes first, gas or ion exchange?
S.K. Hetz	743	The role of the spiracles in gas exchange during development of Samia cynthia (Lepidoptera, Saturniidae)
M.B. Thompson	755	Comparison of the respiratory transition at birth or hatching in viviparous and oviparous amniote vertebrates
S. Sbong and E.M. Dzialowski	761	Respiratory and cardiovascular responses to acute hypoxia and hyperoxia in internally pipped chicken embryos
A. Mess and A.M. Carter	769	Evolution of the placenta during the early radiation of placental mammals
D. Singer and C. Mühlfeld	780	Perinatal adaptation in mammals: The impact of metabolic rate
Review		
E. Sandblom and M. Axelsson	785	The venous circulation: A piscine perspective
General papers		
M. Fujita, K. Kawakami and H. Higuchi	802	Hopping and climbing gait of Japanese Pygmy Woodpeckers (Picoides kizuki)
F. D'Amico and G. Hémery	811	Time-activity budgets and energetics of Dipper Cinclus cinclus are dictated by temporal variability of river flow
Y. Wang, J. Xu, L. Sheng and Y. Zheng	821	Field and laboratory investigations of the thermal influence on tissue-specific Hsp70 levels in common carp (<i>Cyprinus carpio</i>)
S. Nain, B. Laarveld, C. Wojnarowicz and A.A. Olkowski	828	Excessive dietary vitamin D supplementation as a risk factor for sudden death syndrome in fast growing commercial broilers
T. Gidenne, L. Debray, L. Fortun-Lamothe and I. Le Huërou-Luron	834	Maturation of the intestinal digestion and of microbial activity in the young rabbit: Impact of the dietary fibre:starch ratio
F. Moccia	845	Latrunculin A depolarizes starfish oocytes
R.C. Bartolo and J.A. Donald	853	The distribution of renal hyaluronan and the expression of hyaluronan synthases during water deprivation in the Spinifex hopping mouse, <i>Notomys alexis</i>
C.L. Cox and S.M. Secor	861	Effects of meal size, clutch, and metabolism on the energy efficiencies of juvenile Burmese pythons, <i>Python molurus</i>

J. Gardeström, T. Elfwing, M. Löf, M. Tedengren, J.L. Davenport and J. Davenport	869	The effect of thermal stress on protein composition in dogwhelks (Nucella lapillus) under normoxic and hyperoxic conditions
D.M. Newman, P.L. Jones and B.A. Ingram	876	Temporal dynamics of oocyte development, plasma sex steroids and somatic energy reserves during seasonal ovarian maturation in captive Murray cod Maccullochella peelii peelii
G.G. de Araujo, M. Papoti, F. de Barros Manchado, M.A.R. de Mello and C.A. Gobatto	888	Protocols for hyperlactatemia induction in the lactate minimum test adapted to swimming rats
M. Superina and P. Boily	893	Hibernation and daily torpor in an armadillo, the pichi (Zaedyus pichiy)
J.M. André, G. Guy, K. Gontier-Latonnelle, M.D. Bernadet, B. Davail, R. Hoo-Paris and S. Davail	899	Influence of lipoprotein-lipase activity on plasma triacylglycerol concentration and lipid storage in three genotypes of ducks
I. Leguen, C. Cauty, N. Odjo, A. Corlu and P. Prunet	903	Trout gill cells in primary culture on solid and permeable supports
K.C. Hanson, C.T. Hasler, C.D. Suski and S.J. Cooke	913	Morphological correlates of swimming activity in wild largemouth bass (Micropterus salmoides) in their natural environment
M. Merchant, S. Williams, P.L. Trosclair III, R.M. Elsey and K. Mills	921	Febrile response to infection in the American alligator (Alligator mississippiensis)
C.A. Manire, L.E.L. Rasmussen, K.P. Maruska and T.C. Tricas	926	Sex, seasonal, and stress-related variations in elasmobranch corticosterone concentrations
	I	Contents of Volume 148
	VIII	Subject Index
	XII	Author Index
	XV	Call for Papers: 6th ISFE 2008

SUBJECT INDEX

Vol. 148A, Nos. 1-4

Absorption, 223
Acid absorption, 14
Acid-base, 133
Actin autockalaton 9

Actin cytoskeleton, 845 Acute heart failure, 828 Adaptive energetics, 811

Adipocyte, 629 Adrenaline, 510

Adrenergic blocking agents, 301 Adrenergic stimulation, 510 Aerial respiration, 562 Aerobic dive limit, 360

AFP, 556

Agalychnis callidryas, 720 Air-breathing fish, 562 Air exposure, 664 Albula vulpes, 664 Allometric scaling, 611 Allometry, 360

Alpha-melanocyte-stimulating hormone, 408

Altered timing, 712
Altricial bird, 572
Ammonia excretion, 178
Ammonia toxicity, 278
Amnion contractions, 599
Amphibian skin, 55
Amphibians, 44
Amphipod, 239
Anaesthesia, 463

Androgen, 117 Anguilla anguilla, 29 Antioxidant enzymes, 150

Anura, 720

Anuran Amphibia, 64

Anurans, 72

Apoptosis (bax, ASK-1, p53, bcl-2, TdT), 422 Apparent assimilation efficiency, 861

Apparent digestive efficiency, 861

AQP, 92

AQP1(-/-), 101 Aquaporin, 72, 92 Aquaporins, 55, 82, 430 Argentina, 893

Arginine-vasotocin, 422 Arginine vasotocin, 451 Artificial diet, 223 Ascites, 230 Atlantic cod, 681 Atrium, 124

Autoradiography, 324 Avoidance behavior, 286 Barium, 635

Basal metabolic rate, 645 Base secretion, 133 Bat reproduction, 150 Behaviour, 913 Binding, 324 Biomarker, 821

Biotelemetry, 913 Birds, 531 Bivalves, 445 Blesbuck, 399 Blood flow, 55

Body mass, 346, 360 Body size, 249

Body temperature, 301, 674

Bonefish, 664
Bothrops, 142
Brachial, 292
Brain, 324
Brain slices, 374
Brandt's voles, 168
Breathing, 755
Broiler, 828

Broiler chicken, 230 Browser, 249

 δ^{13} C, 504

Cl⁻ absorption, 368 Ca²⁺-ATPase, 124 Ca²⁺ release, 845 Calpain, 591 Capsaicin, 286, 578 Capsazepine, 286, 578 Captivity, 876

Cardiac arrhythmia, 828 Cardiac output, 562

Cardiac stroke volume, 562 Cardiovascular regulation, 510

β-carotene 15, 15'-monooxygenase, 690

Carp, 324 Caterpillar, 743

Cell membrane potential, 635 Central venous pressure, 785

cGMP, 368

Chamaeleonidae, 698 Chemosensation, 44 Chick, 657, 690

Chick biventer cervicis, 142 Chicken, 374, 578, 761 Chicks, 408, 458

Chorioallantoic membrane, 599, 698, 761

Chorioallantoic placenta, 769

Chromanol 293B, 635

Cilia, 445 Cingulata, 893 Climbing, 802 Clutch, 861

CO₂ production, 674 Common carp, 821 Compact myocardium, 562

Compatible—non-compatible osmolytes, 339

Conductance, 743

Confocal microscopy, 308, 521

Cooking, 651 Coprophagy, 249 Corticosterone, 926 Cortisol, 413, 903

Crassostrea virginica, 445

Crayfish, 204 Cricket, 92 Crocodilian, 921 Crustacea, 204, 239, 591 Crustacean gill microsomes, 178

Cutaneous water uptake, 64 Cyanistes caeruleus, 572 Cytochalasin D, 845

Cytochrome c oxidase (COX), 346

D₂ receptor, 674 Daily rhythm, 301 Danio rerio, 463 Dasypodidae, 893 Dehydration, 55 Desert Iguana, 393

Development, 591, 690, 712 Developmental physiology, 720

DGC, 743
DHA, 382
Dietary fibre, 834
Differentiation, 479, 629
Digestibility, 214, 382
Digestive anatomy, 249
Digestive maturation, 834
Digestive physiology, 249
Diplodus puntazzo, 470
Dipsosaurus dorsalis, 393
Dissolved oxygen, 317
Distribution, 621
Dive duration, 360
Diving capacity, 360
Docosahexaenoic acid, 382

Domperidone, 674

Dopamine, 445 Drinking, 3, 23 DRIP, 92 Ducks, 899 Ductus arteriosus, 761

Duodenum, 690

Echinometra, 223 Ecoimmunology, 354 Eel intestine, 368 Efficacy, 463 Egg, 761 Egg-lay, 451 Elasmobranch, 926 Elasmobranch fish, 3 Electrical effects, 196 Embryogenesis, 599, 621 Endotheliochorial placenta, 769 Endothelium-dependent relaxation, 292 Endothermy, 124

Energy budget, 861 Energy intake, 168

Energy metabolism, 214, 230, 239, 479

Energy stress, 811 Enzyme kinetics, 339 $E_{\rm obs}/E_{\rm reg}$ ratio, 811 Epinephrine, 544

Epitheliochorial placenta, 769

Esophagus, 82 Estradiol, 317, 422 Estrogen, 451 Ethanol, 286 Eurasian perch, 504 Euryhaline, 3 Evolution, 732, 755 Exercise, 562, 664, 785

Expression, 681

Extracellular recordings, 374 Extraembryonic membranes, 698

Fatty acid composition, 382

Feed intake, 657 Feeding, 23, 223, 458

Feeding and motion patterns, 544

Feeding rates, 811 Femoral, 292 Fetal membranes, 769

Fever, 578, 921 Fish, 124, 133, 332, 479, 611, 732, 785, 821

FMR/BMR ratio, 811 Food abundance, 572 Foregut fermenter, 249

Freshwater palaemonid shrimp, 178

Frog kidney, 635 Fundulus, 317

Fundulus heteroclitus, 29

GABA_A-and GABA_B-agonists, 374 GABA_A-and GABA_B antagonists, 374 Gadus morhua, 681 Gait transition, 802 Game, 399

Ganglia, 445 Gas exchange, 769

Gene expression, 591, 629

Gill, 82, 332, 430, 445, 732, 903

Gills, 479

Glycine tomentella, 189

Goldfish Carassius auratus (L.), 544

Graded response, 743

Gravity, 802 Grazer, 249 Grinding, 651 Growth, 531 Growth rate, 861 Gut. 23

Gut health, 834

[3H]Muscimol, 324

Haemochorial placenta, 769

Haemoglobin, 572

Haemolymph ammonia, 278

Haemolymph ionic composition, 278

Haemolymph osmolality, 278

Haemolymph pH, 278 Haloperidol, 674 Hamster, 674

Handling, 531 Hatching, 720

HCO₃ secretion, 133 HCO₃ transport, 368 Heart failure, 230 Heart rate, 562, 599

Heat production, 408

Heat shock protein, 308, 521

Heat stress, 821 Hemoglobin, 498 Hepatic steatosis, 899 Herbivory, 249 Heterochrony, 712 Heterokairy, 712, 720

High resistance epithelium, 64

Hindgut fermenter, 249

HMR1556, 635 Holstein, 629 Hopping, 802 Hsp70, 821 Human, 399

Hyalella castroi, 239 Hvalella pleoacuta, 239 Hyaluronan, 853

Hyaluronan matrix, 853 Hyaluronan synthase, 853 Hybridization, 521

Hydration shell, 556 Hydrocortisone, 690

Hyperlactatemia induction, 888

Hyperoxia, 761

Hypertonic absorbate, 14 Hypocholesterolemia, 189 Hypolipidemia, 189

Hyposmotic transport, 64, 101

Hypothalamo-pituitary-adrenal axis, 531

Hypothalamus, 657 Hypothermia, 645

Hypoxia, 317, 674, 761, 785 Hypoxia tolerance, 780

I-Tiao Gung, 189

Ice, 556 Immunity, 354

Immunohistochemistry, 72, 308

Immunolocalization, 621 Incubation temperature, 698

Ingesta retention, 249 Insect, 92, 743 InsP₃ receptors, 845 Interspecific, 611 Intestinal enzymes, 470

Intestine, 3, 14, 29, 82, 430 Intracerebroventricular, 458

Intracerebroventricular injection, 408 Intraperitoneal, 458 Intraspecific, 611 Ion loss, 664 Ionoregulation, 732 Isoflavone, 189 Isoform, 332

Isoproterenol, 64

Isosmotic transport, 64, 101

Japanese Black, 629 Juvenile salmon, 23

K⁺-ATPase activity, 413

KCNQ1, 635

KCNQ1 mRNA expression, 635

11-ketotestosterone, 317 Kidney, 82, 430, 853 Kidney proximal tubule, 101 Kinematic parameters, 802

Kudu, 399

Lactate minimum test, 888

Lactoferrin, 584

Lactoferrin Receptor, 584 Largemouth bass, 913

Larva, 463, 732

Larval development, 470 Lateral intercellular space, 64

Latrunculin A, 845 LDL oxidation, 189 Leptin, 168, 346, 422

Limbs, 292

Lipid metabolism, 408

Lipids, 899

Lipoperoxidation, 239

Subject Index

Lipopolysaccharide, 354, 921 Lipoprotein-lipase, 899 Long-chain polyunsaturated fatty acids, 382 LPS, 23, 578 Lung, 755 Lung volume, 360 Lungs, 761

Lysosomal enzymes, 159 Maccullochella peelii peelii, 876 Macrobrachium, 178 Macromolecular crowding, 339 Malpighian tubule, 92 Mammalian hibernation, 780 Marine, 664 Marine fish, 14, 556 Marsupial, 498 Mathematical modeling of epithelial fluid transport, 101 Meal size, 861 Mean circulatory filling pressure, 785 Meat, 651 Mechanical effects, 196 Megalops cyprinoides, 562 Membrane depolarization, 845 Metabolic constituents, 504 Metabolic efficiency of Na⁺ absorption, 101 Metabolic size relationship, 780 Metabolism, 204, 393, 611, 861 Microtus socialis, 301 Mitochondrial respiration, 780

Mixed effects models, 266
Molecular chaperone, 308, 521
Molting, 591
Mongolian gerbils (*Meriones unguiculatus*), 346
15'-monooxygenase, 690

Mitochondrion-rich cells, 479

Morphine, 286 Morphology, 913 Mortality, 828 Moth pupae, 743

Mouse phrenic nerve-diaphragm, 142 M_r 25,000 protein (pp25), 621 mRNA, 308, 332, 521, 681

MS222, 463 Mucous cell, 903 Mud crab juveniles, 278

Mule ducks are hybrids of male Muscovy ducks and female Pekin ducks, 899

Muridae, 645 Muscle plasticity, 591

Muscovy ducks (Cairina moschat), 899

Myoglobin, 681

Myometrial contraction, 451

Myostatin, Ubiquitous expression, Testis, Ovary, Chicken embryogenesis, 550

Myotoxins, 142

 δ^{15} N, 504 Na⁺, 413

Na⁺, K⁺, 2Cl⁻ cotransport, 29

Na⁺ transport, 44 NaCl secretion, 479 Na⁺/Cl⁻ uptake, 479 (Na⁺,K⁺)-ATPase, 178 Na⁺,K⁺-ATPase, 332

Natural flow regime paradigm, 811

Nestlings, 572

Neurohypophysial hormones, 451 Neuromuscular junction, 142

Neuropeptide S, 657 Newborn marsupials, 780

N^G-nitro-L-arginine methyl ester, 458 Nile tilapia (*Oreochromis niloticus*), 214

Nitric oxide, 292, 368, 458

NKCC, 29 Nociception, 286

Nonshivering thermogenesis (NST), 168, 346

Normal table of development, 698

Notomys alexis, 853 Nucella, 869 Nutrition, 223

Okinawa, 223

Ontogeny, 463, 470, 611, 732

Oocyte, 621

Oocyte growth, 876 Opercular epithelium, 29

Oreochromis mossambicus, 189

Osmolarity, 382

Osmoregulation, 3, 82, 178, 332, 430

Ovarian maturation, 876

Ovary, 422 Oviposition, 451 Oxidative stress, 150 Oxygen, 869 Oxygen affinity, 498

Oxygen consumption, 599, 761

Oxygen toxicity, 780 Oxygen uptake, 732

Pancreatic enzymes, 470 Paracellular pathway, 368 Parastacidae, 204

Pavement cell, 903

'peak total demand' hypothesis, 811 Pekin ducks (*Anas plathyrhynchos*), 899

Pelvic patch skin, 72 Perinatal adaptation, 780 Permeable support, 903 Phenotypic plasticity, 712, 720

Pheromone, 117 Phospholipase A₂, 142 Photoperiod, 354 Phylogenetics, 769

Physiological condition, 572

Physiology, 463, 732

Pig, 584

Placentalia, 769 Possum, 498

Predation, 720

Preterm neonates, 780 Primary culture, 903 Production efficiency, 861

Progesterone, 422

Proliferation (PCNA, cyclin B1), 422

Protein, 681 Protein kinase, 29 Proteomics, 869 Proximal tubule, 635 Pulmonary circulation, 510 Pythons, 651

Rabbit, 834

Rainbow trout, 903

Rana ridibunda ventricle, 196

Rapid growth, 230 Recovery, 664 Reference ranges, 266

Renal, 3 Renin–angiotensin system, 23

Replacement oil, 382

Reproduction, 317, 913, 926 Reptile, 393, 510, 755

Respiration, 720, 743, 755 Respiratory quotient, 408

Retinal dehydrogenase, 690 Retinoic acid, 690

rhGH, 159 River bird, 811 Rodentia, 645

ROS generation, 150 ROS scavenging, 150

Round goby, 117 Ruminant, 249

RVD, 29 RVI, 29

S. senegalensis, 413

Salinity, 332, 413 Salinity adaptation, 430

Salt, 556

Scylla serrata, 278 SDS-PAGE, 399

Sea urchins, 223

Seasonal, 354

Seasonality, 204, 239

Seat patch, 55 Secretion, 92

Seminal vesicle, 117

SERCA2, 124 Serotonin, 445

Serum chemistry, 266

Sex steroids, 876

Shark, 926 Sharpsnout sea bream, 470

Shell gland, 451 Single cell oils, 382 Skeletal muscle, 159, 591

Skeletal muscle Sleep, 393

Small intestine, 101

Snail, 286 Snake, 510

Snake venoms, 142 Sodium coupled transport, 635

Solute coupled water transport, 64, 101

Somatic energy reserves, 876

SPAK, 29

Specific dynamic action, 214, 651

Spermatogenesis, 150

Spiracles, 743

Standard, routine, and active metabolic rate, 214

Starfish oocytes, 845

Stearoyl-CoA desaturase, 629

Steroid, 117 Stingray, 926

Stress, 308, 531, 664, 926

Substrate angle, 802

α-subunit expression, 178

Surfactant, 755 Swimming rats, 888 Sympatric, 239

Synaptotagmin, 591 Systemic circulation, 510

Tail bending, 802 Teleost fish, 82, 430

Temperature, 124, 599, 681, 785 Temperature sensitivity, 374 Testes growth, 150 Testes recrudescence, 150

Testis, 117

Testosterone, 317, 422

Thermal hysteresis, 556

Thermal pollution, 821 Thermal tolerance, 869

Thermodynamic non-ideality, 339

Thermoregulation, 374, 893

Thermotolerance, 521

Thraustochytrids, 382

tilapia, 189 Tissue, 504

Toad, 55

Toad skin epithelium, 101 Toll-like receptor, 354

Torpor, 645
Toxicity, 463

Toxicity, 463 Tree frog, 72

Trophic fractionation, 504

TRPV1, 578 Tuna, 124 Turtle, 599

Un-freezable water, 556

Uncoupling protein 1 (UCP1), 168, 346

Uphill water transport, 64, 101

Urinary bladder, 72 Urinary 6-SMT, 301

Urine production rate, 301

Ussing chamber, 29

Uterus, 451

Vascular capacitance, 785

Vasotocin, 72

Vasotocin receptor, 451

Ventilation, 674, 755 Vesicular trafficking, 133 Vitamin D, 828

Vitellogenin, 317 Viviparity, 755 Volume, 3

 $22:6\omega 3, 382$

Water absorption, 14, 23

Water balance, 44

Water channel, 72, 430

Water deprivation, 853

Water transport, 82

Water uptake, 55 Western blot, 621

Wild ruminants, 399

Wildebeest, 399

Woodpeckers, 802

Xenarthra, 893 Xenopus laevis, 621

Yolk protein, 621 Yolk sac, 698

Zebrafish, 463

AUTHOR INDEX

Vol. 148A, Nos. 1-4

Abe, A.S., 510
Abreu, V.A., 142
Achaval, M., 286
Adachi, N., 408
Agis-Torres, A., 159
Ahmed, M.M., 578
Aktülün, S., 470
Alcorn, J., 230
Alekseeva, T.A., 599
Alpbaz, A., 470
Anderson, W.G., 3
André, J.M., 899
Andrews, R.M., 698
Aoki-Yagi, N., 621
Aramaki, S., 550
Araya, N.M., 707
Arbuckle, W.J., 117
Ardelean, C., 196
Arenas-Ríos, E., 150
Arjona, F.J., 413
Augusto, A., 178
Aujoulat, F., 430
Axelsson, M., 785

Bacigalupe, L.D., 707 Baldwin, J., 562 Ballantyne, J.S., 332 Balmer, B.C., 266 Banas, D., 504 Bańbura, J., 572 Bańbura, M., 572 Bartolo, R.C., 853 Becker, K., 214 Belli, N.M., 178 Bentivegna, F., 360 Bernadet, M.D., 899 Betti, L., 324 Block, B.A., 124 Boback, S.M., 651 Boily, P., 893 Bond Buckup, G., 204 Bond-Buckup, G., 239 Borja-Oliveira, C.R., 142 Boswell, T., 408 Boulo, V., 430 Bowden, C.N., 657 Bowles, D.K., 292 Bozinovic, F., 707 Bradshaw, C.J.A., 360

Brodsky, J.L., 92 Bystriansky, J.S., 332

Candy, E.J., 531 Carmody, R., 651 Carroll, M.A., 445 Carter, A.M., 769 Carter, C.G., 382 Carter, M.J., 707 Castiglioni, D.S., 239 Castilho, P.C., 124 Castille, R., 430 Catalán, T.P., 707 Catapane, E.J., 445 Cauty, C., 903 Cemerikic, D., 635 Cervantes, D.L.M.I., 150 Chang, E.S., 591 Charmantier, G., 430 Chaturvedi, C.M., 451 Cheek, A.O., 317 Chen, T.Y., 189 Christian, K., 562 Clark, T.D., 562 Clauss, M., 249 Cline, M.A., 657

Coban, D., 470

Cooper, C., 645

Corlu, A., 903

Cockrem, J.F., 531

Corkum, L.D., 117

Cornett, L.E., 451

Cox, C.L., 651, 861

Cramb, G., 82, 430

Cutler, C.P., 82

Cooke, S.J., 664, 913

D'Amico, F., 811
da Silva-Castiglioni, D., 204
Dal Belo, C.A., 142
Danylchuk, A.J., 664
Danylchuk, S.E., 664
Davail, B., 899
Davail, S., 899
Davenport, J., 869
Davenport, J.L., 869
Davidson, C.M., 531
de Araujo, G.G., 888
de Barros Manchado, F., 888
de Mello, M.A.R., 888
Debray, L., 834

Donald, J.A., 853 Dosoky, R.M., 578 Dragovic, S., 635 Dunbar, S.G., 393 Dutra, B.K., 239 Dzialowski, E.M., 709, 761

Eddy, F.B., 23 Elfwing, T., 869 Elsey, R.M., 921 Evans, R.P., 556

Fabbrini, L., 324
Fabiani, O., 324
Faggio, C., 368
Farrell, A.P., 562
Fletcher, G.L., 556
Focken, U., 214
Fortun-Lamothe, L., 834
Fowden, H., 430
Firat, K., 470
Freire, C.A., 478
Frick, N.T., 332
Fujita, M., 802
Furriel, R.P.M., 178
Furtado, M.d.F.D., 142
Furuse, M., 408

Galli, G.L.J., 510 Gardeström, J., 869 Garina, D.V., 544 Gerasimov, Yu.V., 544 Giannaccini, G., 324 Gidenne, T., 834 Giffard-Mena, I., 430 Gingerich, A.J., 664 Gobatto, C.A., 888 Goddard, S.V., 556 Godlove, D.C., 657 Goldberg, T.L., 664 Gontier-Latonnelle, K., 899 Good, J.P., 3 Goss, G.G., 133 Gravel, M.-A., 664 Grosell, M., 1, 3, 14 Grossmann, R., 422 Guy, G., 899

Haim, A., 301 Hall, A.J., 266 Halsted, C.H., 584

Bridges, J.P., 531

Brittain, T., 498

Hanson, K.C., 664, 913 Hasebe, Y., 458 Hasegawa, T., 72 Hashimoto, E., 621 Hasler, C.T., 913 Hattori, M.-a., 550 Hays, G.C., 360 Hazon, N., 3 Heikkila, J.J., 308, 521 Hémery, G., 811 Henty, K., 498 Hernandes-Oliveira, S.S., 142 Hetz, S.K., 743 Higuchi, H., 802 Hillyard, S.D., 44, 55 Hiratsuka, Y., 223 Hobbs, R.S., 556 Hochscheid, S., 360 Hoff, K.vS., 44 Hoffman, L.C., 399 Hoffmann, E.K., 29 Hohn, A.A., 266 Hoo-Paris, R., 899 Hull, K.L., 531 Hummel, J., 249 Hviid Larsen, E., 1

Ingram, B.A., 876 Italiani, P., 324

Hwang, P.-P., 479

Hyslop, S., 142

Jasra, S.K., 117 Jones, P.L., 876 Jürgen Streich, W., 249

Kaiser Dutra, B., 204
Kalil-Gaspar, P., 286
Kaliński, A., 572
Kano, K., 629
Kaufmann, N., 92
Kawahara, A., 621
Kawakami, K., 802
Khan, Md.S.I., 458
Knezevic, A., 635
Kohn, T.A., 399
Koppelman, J.B., 664
Koschnick, N., 681
Kubota, K., 550
Kuz'mina, V.V., 544

Laarveld, B., 230, 828 Landeira-Fernandez, A.M., 124 Landry, C.A., 317 Lardies, M.A., 707 Larsen, E.H., 64, 101 Laughlin, M.H., 292 Le Huërou-Luron, I., 834 Lee, T.-H., 479 Leguen, I., 903 Lenzi, C., 324 Leone, F.A., 178 León-Galván, M.A., 150 Li, W., 117 Liao, Y., 584 Ling, B.B., 230 Löf, M., 869 Lönnerdal, B., 584 Lopez, V., 584 López-Oliva, M.E., 159 López-Wilchis, R., 150 Lucacchini, A., 324 Lucassen, M., 681 Lurman, G.J., 681

Maffucci, F., 360 Mahmoud, M.E., 578 Mamun, S.M., 214 Mancera, J.M., 413 Manire, C.A., 926 Mannen, H., 629 Manning, S., 317 Manwell, L.A., 521 Marcuzzo, S., 286 Márquez, E., 159 Marshall, W.S., 29 Martín del Río, M.P., 413 Martinez, A.-S., 82 Maruska, K.P., 926 Mascia, G., 324 Masuda, N., 458 Masui, D.C., 178 McMahon, C.R., 360 McNamara, J.C., 178 Medler, S., 591 Mercado, P.E., 150 Merchant, M., 921 Mess, A., 769 Miller, M.R., 382 Mills, K., 921 Milovanovic, A., 635 Milovanovic, J., 635 Miyahara, T., 621 Møbjerg, N., 101 Moccia, F., 845 Molina, C.G., 286 Moran, D., 611 Morrissette, J., 124 Mühlfeld, C., 780 Mukai, F., 629 Mulligan-Tuttle, A., 308 Muñoz-Martínez, E., 159 Murchie, K.J., 664 Myburgh, K.H., 399 Mykles, D.L., 591

Nagai, T., 44 Nain, S., 230, 828 Nakamura, H., 621 Nandar, W., 657 Navara, K.J., 354 Navas, C.A., 478 Nechaeva, M.V., 599 Nelson, R.J., 354 Nesovic-Ostojic, J., 635 Newcomer, S.C., 292 Newman, D.M., 876 Nichols, P.D., 382 Nielsen, R., 64, 101 Nikami, H., 578

O'Connor, C.M., 664
Odjo, N., 903
Ogushi, Y., 72
Ohsaki, H., 629
Oikawa, D., 408
Okan Kamacı, H., 470
Oliveira, G.T., 204, 239
Olkowski, A.A., 230, 828
Olsen, S.N., 339
Ortmann, S., 249
Ott, B.D., 651

Pan, B.S., 189 Papoti, M., 888 Parks, S.K., 133 Pidalà, P., 368 Pirone, A., 324 Popadic, D., 635 Pörtner, H.-O., 681 Prall, B.C., 657 Prunet, P., 903

Ramløv, H., 339 Rasmussen, L.E.L., 926 Redpath, T., 664 Revell, T.K., 393 Rhinehart, H.L., 266 Richards, J.G., 332 Rigon, P., 286 Robichaux, S.R., 92 Roche, H., 504 Rodrigues-Simioni, L., 142 Romano, N., 278 Rombough, P., 732 Rombough, P.J., 463 Rosado, A., 150 Ruiz-Jarabo, I., 413 Rundle, S.D., 712

Sado, Y., 621 Saka, Ş., 470 Sallagundala, N., 374 Sandblom, E., 785 Santos, L.C.F., 178 Santos, R.B., 239 Sasazaki, S., 629 Sato, F., 550 Sawa, T., 629 Sbong, S., 761

Author Index

Schettino, T., 29 Schlenker, E.H., 674 Schulte, P.M., 332 Schwarm, A., 249 Scott, A.P., 117 Secor, S.M., 651, 861 Sevcencu, C., 196 Seymour, R.S., 562 Shafizadeh, T.B., 584 Sheng, L., 821 Shiina, T., 578 Shimizu, Y., 578 Singer, D., 780 Sirotkin, A.V., 422 Skovgaard, N., 510 Skwarska, J., 572 Słomczyński, R., 572 Soh, T., 550 Spicer, J.I., 712 Spring, J.H., 92 Srivastava, R., 451 Steele, S.L., 317 Sugimoto, I., 621 Superina, M., 893 Suruga, K., 690 Suski, C.D., 664, 913 Suzer, C., 470 Suzuki, M., 72 Sweeney, J.C., 266

Tachibana, T., 408, 458 Takase, S., 690 Takewaki, T., 578 Tanaka, S., 72 Taniguchi, M., 629 Tarba, C., 196 Taylor, E.W., 510 Taylor, J.C., 292 Taylor, J.R., 3, 14 Tedengren, M., 869 Thomas, M., 504 Thompson, M.B., 755 Tomlinson, S., 645 Townsend, F.I., 266 Trainor, B.C., 354 Tresguerres, M., 133 Tricas, T.C., 926 Trischitta, F., 368 Trosclair III, P.L., 921 Tzschentke, B., 374

Uccelli, A., 324 Ueda, H., 458 Uehara, T., 223 Ueno, S., 621

Vargas-Chacoff, L., 413 Viborg, A., 44 Viborg, A.L., 55 Vladimirova, I.G., 599 Vollaire, Y., 504

Wang, D.-H., 168, 346 Wang, T., 510 Wang, Y., 821 Warkentin, K.M., 720 Wawrzyniak, J., 572 Wells, R.M.G., 498, 562, 611 Wells, R.S., 266 Westh, P., 339 Williams, S., 921 Willumsen, N.J., 55 Withers, P.C., 645 Wojnarowicz, C., 230, 828 Wrangham, R.W., 651

Xu, J., 821

Yakimova, K., 374 Yamaguchi, N., 690 Yamamoto, T., 690 Yamauchi, N., 550 Yoshida, Y., 621 Yoshitome, S., 621

Zeng, C., 278 Zhang, Z.-Q., 346 Zhao, Z.-J., 168 Zheng, Y., 821 Zieliński, B., 117 Zieliński, P., 572 Zubidat, A.E., 301